

ABSTRACT

A high strength steel sheet excellent in formability which has a chemical composition in mass %: C: 0.03 to 0.20%, Si: 0.005 to 0.3%, Mn: 1.0 to 3.1%, P: 0.001 to 0.06%, S: 0.001 to 0.01%, N: 0.0005 to 0.01%, Al: 0.2 to 1.2%, Mo \leq 0.5%, and the balance: Fe and inevitable impurities, with the proviso that the values of mass % for Si and Al satisfy the following formula (1): $(0.0012 \times [\text{objective value of TS}] - 0.29 - [\text{Si}]) / 2.45 < \text{Al} < 1.5 - 3 \times [\text{Si}]$ (1) wherein [objective value of TS] represents a design strength value for the steel sheet in an Mpa unit, and has a metal structure containing ferrite and martensite. The above high strength steel sheet is also excellent in formability and the capability of being chemically treated and that of being hot-dip zinc sheeted.